

Prioritizing Opportunities to Reduce Foodborne Disease



Iowa State University
Resources for the Future (RFF)
University of California-Davis
University of Georgia
University of Maryland - Baltimore
University of Massachusetts

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National Integrated Food Safety Initiative

A project designed to...

- ❑ Develop a **conceptual framework** for prioritizing opportunities to reduce the risk of foodborne illness
 - Integrated, systems understanding of factors that contribute to causation and prevention of illness
- ❑ Identify **criteria** to be used to evaluate risks and risk-control processes
- ❑ Evaluate different **predictive modeling approaches** and applicability for use
- ❑ Identify available **data sources and gaps**
- ❑ Build understanding about using an integrated, system-wide approach to setting risk-based priorities

Workshops and Working Groups

- Risk Modeling Approaches and Case Studies
 - Iowa State Univ., UC-Davis, and Univ. of Maryland
(Iowa, June 2004)
- Economic Measures of Intervention
 - University of Massachusetts (Dec. 2004)
- Food Safety Interventions and Food Attribution
 - University of Georgia (April 2005)
- National Conference
 - Resources for the Future, DC – Sept. 2005

Need for Risk-Based Priority Setting

- Established regulatory frameworks and private efforts provide a solid foundation for food safety
- But, choices are constantly required to guide implementation and new initiatives
- In a world of finite resources, with public health as the goal, this requires risk-based priority setting

Diverse Institutions and Purposes

The need for and nature of risk-based priority setting varies based on:

- Diverse institutional needs – federal and state regulators; researchers; and private enterprises
- A range of purposes – from broad public resource allocation to private sector risk management
- **Key point** – Priority setting tools must be adaptable to the spectrum of institutions and purposes

Purpose 1 Priority Setting

In the FSRC conceptual framework, *Purpose 1 priority setting*:

- ▣ Guides risk-based allocation of food safety resources, primarily by government, across a wide range of opportunities to reduce the public health impact of foodborne illness
- ▣ Identifies risks and points on the farm-to table spectrum that should be targeted for risk reduction but not does not reveal the most effective risk management action(s)

Purpose 2 Priority Setting

In the FSRC conceptual framework, *Purpose 2 priority setting*:

- ▣ Guides the choice of risk management actions and strategies, by public or private risk managers, with respect to particular hazards and commodities
- ▣ More data intensive, with focus on quantifying where possible the effectiveness and cost of alternative intervention strategies

Key Principles

Regardless of purpose, **key principles of the framework and priority setting tools** include:

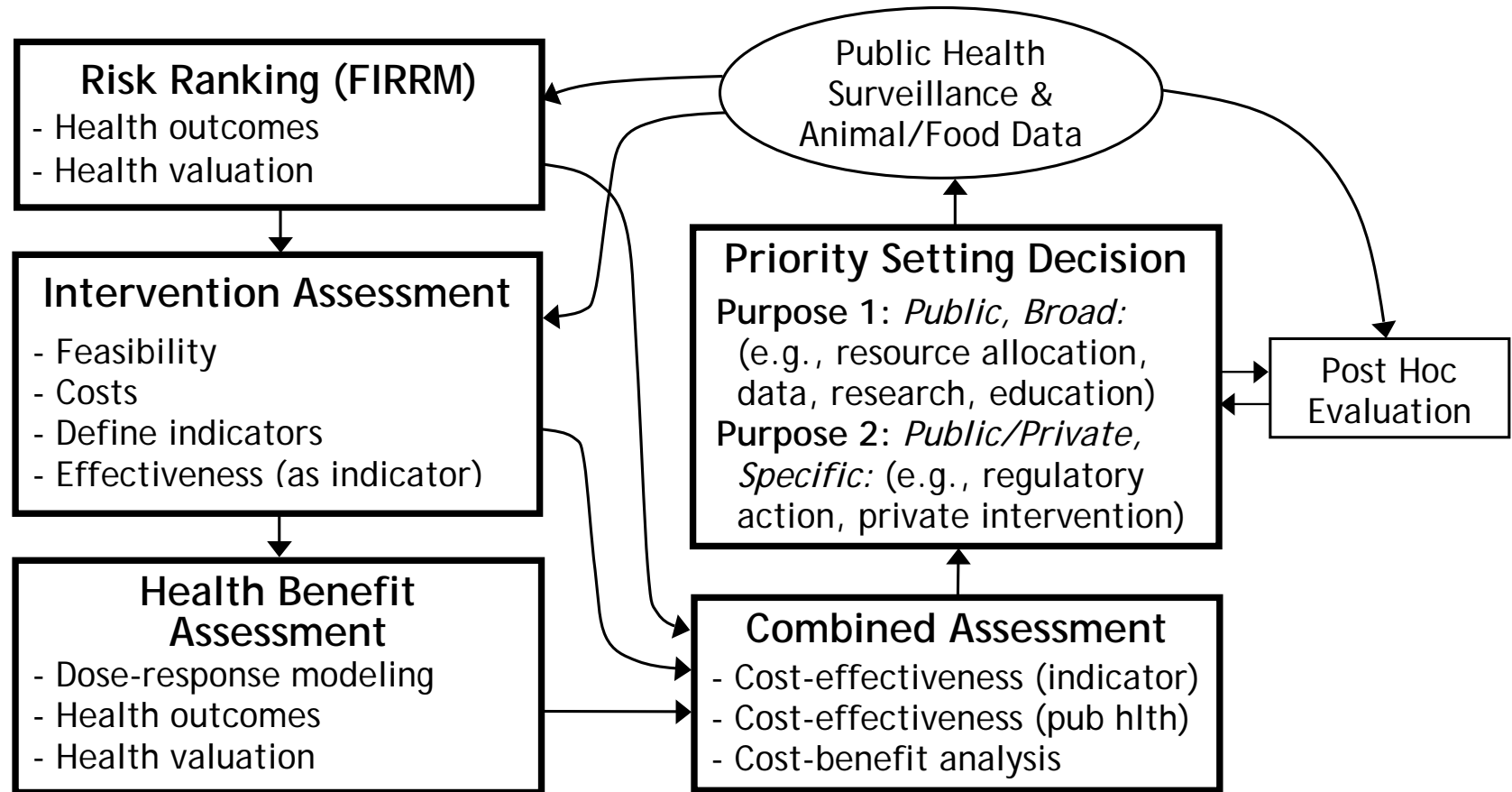
- ❑ Common goal of reducing foodborne illness through risk-based allocation of resources;
- ❑ Practicality, recognizing real needs of decisionmakers, data limits, and cost of analysis
- ❑ Yet data-driven, systems-oriented, transparent, and flexible
- ❑ Not a formula for resource allocation
- ❑ Not an obstacle to action
- ❑ Iterative, with focus on post hoc evaluation

Common Analytical Elements

To varying degrees, Purpose 1 and Purpose 2 priority setting may involve:

- ▣ Risk ranking – to identify hazards whose public health impact may deserve priority for action or deeper analysis;
- ▣ Intervention assessment – to identify possible risk reduction interventions and, when possible, their feasibility, effectiveness and cost
- ▣ Health benefit assessment – to understand, especially in Purpose 2 and post hoc evaluation, the public health benefit of specific interventions
- ▣ Combined assessment – integrating data from risk, intervention, and benefit assessments to inform resource allocation and risk management decisions

Conceptual Framework



For more information...



Project website: Center for Agricultural and Rural
Development (CARD), Iowa State University

http://www.card.iastate.edu/food_safety/

FSRC website: Food Safety Research Consortium

<http://www.rff.org/fsrc/>